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SEQUENCE LISTING

<110> RAHME, Laurence
DEZIEL, Eric
LEPINE, Francois
TOMPKINS, Ronald G.
XIAO, Gaoping

<120> Methods For Identifying Candidate
Compounds For Treating, Reducing, or Preventing Pathogenic
Infections

<130> 00786/455003

<150> PCT/US05/02174
<151> 2005-01-21

<150> US 60/538,361
<151> 2004-01-22

<150> US 60/538,278
<151> 2004-01-21

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<170> FastSEQ for Windows Version 4.0

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<212> DNA
<213> Pseudomonas aeruginosa

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cgcacccgct atcacgtcg gccggaacag gcggc当地 cagcg cgctgatggg gccggc当地 180
cgccaggcca tcgaggc当地 ctggctgctg ccggaggaca tcgacctgtt gctggt当地 240
accctgtc当地 cggaccacca cgaccgtcc caggc当地 tgatccaggg gctgctggc 300
ctgc当地 caca tcccggtact ggatatccgg gcacagt当地 gcggg当地 gtacggctt当地 360
cagatggc当地 gcggg当地 cagat cctc当地 cggc当地 atgtc当地 ggtctg当地 420
gaggtgctgt ccaagc当地 cat ggactg当地 tcg gaccg当地 gcaacctg当地 gatc当地 ctg当地 480
ggc当地 acgg当地 cggc当地 caggt ggtggt当地 cagc gccgg当地 gaga gtctc当地 aaga cgactg当地 540
gactc当地 gc当地 tggc当地 cccgta cgcaactac ttc当地 gacctg当地 tgatgacc当地 ggc当地 cccg当地 600
atgc当地 cctc当地 cgac当地 ttcc cct cagagaat gtc当地 ctg当地 cgg当地 agggc当地 ggggg当地 cgagg当地 ttcc 660
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<211> 906

<212> DNA

<213> Pseudomonas aeruginosa

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atcagccccc当地 atgccc当地 attt gtttggc当地 gacctg当地 gctggg当地 tc当地 cgacccg当地 180
caggtgact actggc当地 tggat caccacacaag cactacgacc actgc当地 ggctt当地 gctgccc当地 240
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aagtccggaaa gccc当地 gggtggc当地 ggtggc当地 gag cgtt当地 aacc gcaactg当地 ttcc当地 gctg当地 cggag 360
cagc当地 gggtt当地 cccgaggc当地 ctggc当地 tggatggc当地 gctctg当地 cccg当地 gacggc当地 420
gagttggc当地 agctgggacc gccc当地 catcgc当地 ctgc当地 caggta tagaggc当地 cggccacagc 480
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ggc当地 gagttc当地 acgaggc当地 gagggggtgtgg cggccgctgg tggta cccg当地 catggaggc当地 600
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ctgaggc当地 gagctglocal cccctggg gggc当地 gagc当地 tc当地 actt当地 cccggc当地 gaa 840
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<210> 6

<211> 1149

<212> DNA

<213> Pseudomonas aeruginosa

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ggcatcacc当地 tggc当地 gagca ctc当地 gttt当地 gagc gctt当地 ctgg cacc当地 gg 180
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cacaactglocal atgc当地 ggccgct actggagggg ctggatglocal cgc当地 cattc当地 ggtc当地 gggggtc 360
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<212> DNA
<213> Pseudomonas aeruginosa

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<211> 517
<212> PRT
<213> Pseudomonas aeruginosa

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35 40 45
Leu Leu Lys Pro Gly Asp Arg Val Val Leu Ala Leu Asn Asp Ser Pro
50 55 60
Ser Leu Ala Cys Leu Phe Leu Ala Cys Ile Ala Val Gly Ala Ile Pro
65 70 75 80
Ala Val Ile Asn Pro Lys Ser Arg Glu Gln Ala Leu Ala Asp Ile Ala
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Ala Asp Cys Gln Ala Ser Leu Val Val Arg Glu Ala Asp Ala Pro Ser

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Pro Leu Leu Asp Asp Phe Ser	Leu Asp Ala Leu Val	Gly Pro Ala Asp	
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Leu Asp Trp Ser Ala Phe His	Arg Gln Asp Pro Ala Ala Ala	Cys Phe	
145	150	155	160
Leu Gln Tyr Thr Ser Gly Ser	Thr Gly Ala Pro Lys Gly Val	Met His	
165	170	175	
Ser Leu Arg Asn Thr Leu Gly	Phe Cys Arg Ala Phe Ala	Thr Glu Leu	
180	185	190	
Leu Ala Leu Gln Ala Gly Asp	Arg Leu Tyr Ser Ile Pro	Lys Met Phe	
195	200	205	
Phe Gly Tyr Gly Met Gly Asn	Ser Leu Phe Phe Pro	Trp Phe Ser Gly	
210	215	220	
Ala Ser Ala Leu Leu Asp Asp	Thr Trp Pro Ser Pro	Glu Arg Val Leu	
225	230	235	240
Glu Asn Leu Val Ala Phe Arg	Pro Arg Val Leu Phe Gly Val	Pro Ala	
245	250	255	
Ile Tyr Ala Ser Leu Arg Pro	Gln Ala Arg Glu Leu Leu Ser	Ser Val	
260	265	270	
Arg Leu Ala Phe Ser Ala Gly	Ser Pro Leu Pro Arg Gly	Glu Phe Glu	
275	280	285	
Phe Trp Ala Ala His Gly Leu	Glu Ile Cys Asp Gly Ile	Gly Ala Thr	
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Glu Val Gly His Val Phe	Leu Ala Asn Arg Pro Gly Gln	Ala Arg Ala	
305	310	315	320
Asp Ser Thr Gly Leu Pro	Leu Pro Gly Tyr Glu Cys Arg	Leu Val Asp	
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Arg Glu Gly His Thr Ile	Glu Ala Gly Arg Gln Gly Val	Leu Leu	
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Val Arg Gly Pro Gly Leu	Ser Pro Gly Tyr Trp Arg Ala	Ser Glu Glu	
355	360	365	
Gln Gln Ala Arg Phe Ala	Gly Gly Trp Tyr Arg Thr Gly	Asp Leu Phe	
370	375	380	
Glu Arg Asp Glu Ser Gly	Ala Tyr Arg His Cys Gly Arg	Glu Asp Asp	
385	390	395	400
Leu Phe Lys Val Asn Gly	Arg Trp Val Val Pro Thr Gln	Val Glu Gln	
405	410	415	
Ala Ile Cys Arg His Leu	Pro Glu Val Ser Glu Ala Val	Leu Val Pro	
420	425	430	
Thr Cys Arg Leu His Asp	Gly Leu Arg Pro Thr Leu Phe	Val Thr Leu	
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Ala Thr Pro Leu Asp Asp	Asn Gln Ile Leu Ala Gln	Arg Ile Asp	
450	455	460	
Gln His Leu Ala Glu Gln	Ile Pro Ser His Met Leu Pro	Ser Gln Leu	
465	470	475	480
His Val Leu Pro Ala Leu	Pro Arg Asn Asp Asn Gly	Lys Leu Ala Arg	
485	490	495	
Ala Glu Leu Arg His Leu	Ala Asp Thr Leu Tyr His Asp	Asn Leu Pro	
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<212> PRT

<213> Pseudomonas aeruginosa

<400> 9

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35 40 45
Ala Ala Val Lys Pro Glu Glu Ile Asp Leu Ile Val Gly Leu Ala Leu
50 55 60
Ser Pro Asp His Leu Ile Glu Asn Arg Asp Ile Met Ala Pro Lys Ile
65 70 75 80
Gly His Pro Leu Gln Lys Val Leu Gly Ala Asn Arg Ala His Val Phe
85 90 95
Asp Leu Thr Asp Ser Ser Leu Ala Arg Ala Leu Tyr Val Val Asp Thr
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Leu Ala Ser Asp Gln Gly Tyr Arg Asn Val Leu Val Val Arg Gly Glu
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Ser Ser Gln Gly Leu Glu Val Asp Ser Glu Ser Gly Phe Ala Leu Ala
130 135 140
Asp Gly Ala Leu Ala Leu Leu Cys Arg Pro Thr Gly Lys Ala Ala Phe
145 150 155 160
Arg Arg Gly Ala Leu Gly Gly Asp Pro Ala Gln Glu Trp Leu Pro Leu
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Ser Ile Pro Leu Asn Thr Asp Ile Arg Gln Val Gly Asp Val Lys Gly
180 185 190
His Leu Asn Leu Pro Ala Gln Pro Gly Leu Pro Glu Ala Val Arg Ala
195 200 205
Gly Phe Thr Arg Leu Ala Gly Asp Phe Pro Gln Leu Asn Trp Val Arg
210 215 220
Glu Glu Trp Phe Gly Gln Gly Arg Pro Asp Gly Arg Cys Leu Gly Pro
225 230 235 240
Phe Glu Leu Ala Ser Gln Leu Arg Ala Ala Gln Arg Asp Arg Leu Asp
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Val Thr Leu Glu Leu Ala Gly Glu Ala His Ala
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<210> 10

<211> 348

<212> PRT

<213> Pseudomonas aeruginosa

<400> 10

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35 40 45
Pro Arg Asn Gly Glu Asn Glu Phe Ser Leu Val Val Arg Ala Ala Glu
50 55 60
Arg Leu Leu Arg Ser Ser Asp Thr Ala Pro Asp Ser Val Asp Met Leu

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Ile Cys Ser Ala Ser Ser Pro Ile Met Thr Asp Ala Gly Asp Val Leu			
85	90	95	
Pro Asp Leu Arg Gly Arg Leu Tyr Pro Arg Met Ala Asn Val Leu Ser			
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Lys Gln Leu Gly Leu Ser Arg Ala Leu Pro Leu Asp Ser Gln Met Glu			
115	120	125	
Cys Ala Ser Phe Leu Leu Asn Leu Arg Leu Ala Ala Ser Met Ile Arg			
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Gln Gly Lys Ala Glu Lys Val Leu Val Val Cys Ser Glu Tyr Ile Ser			
145	150	155	160
Asn Leu Leu Asp Phe Thr Ser Arg Thr Ser Thr Leu Phe Ala Asp Gly			
165	170	175	
Cys Ala Val Ala Leu Leu Thr Arg Gly Asp Asp Asp Ser Cys Asp Leu			
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Gly Arg Trp Arg Leu Pro Glu Asn Pro Thr Gly Glu Ala Lys Pro Arg			
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Leu Tyr Phe Ser Leu Phe Ser Asp Gly Gln Asn Lys Met Ala Ser Phe			
225	230	235	240
Val Pro Thr Asn Val Pro Ile Ala Met Arg Arg Ala Leu Glu Lys Ala			
245	250	255	
Gly Leu Gly Ser Asp Asp Ile Asp Tyr Phe Val Phe His Gln Pro Ala			
260	265	270	
Pro Phe Leu Val Lys Ala Trp Ala Glu Gly Ile Gly Ala Arg Pro Glu			
275	280	285	
Gln Tyr Gln Leu Thr Met Gly Asp Thr Gly Val Met Ile Ser Val Ser			
290	295	300	
Ile Pro Tyr Thr Leu Met Thr Gly Leu Arg Glu Gly Lys Ile Arg Pro			
305	310	315	320
Gly Asp Arg Ile Val Met Ala Gly Ala Ala Thr Gly Trp Gly Phe Ala			
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Ala Gln Val Trp Gln Leu Gly Glu Val Leu Val Cys			
340	345		

<210> 11
 <211> 337
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 11			
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Phe Ile Val Glu Arg Thr Gly Val Arg Thr Arg Tyr His Val Glu Pro			
35	40	45	
Glu Gln Ala Val Ser Ala Leu Met Val Pro Ala Ala Arg Gln Ala Ile			
50	55	60	
Glu Ala Ala Gly Leu Leu Pro Glu Asp Ile Asp Leu Leu Leu Val Asn			
65	70	75	80
Thr Leu Ser Pro Asp His His Asp Pro Ser Gln Ala Cys Leu Ile Gln			
85	90	95	
Pro Leu Leu Gly Leu Arg His Ile Pro Val Leu Asp Ile Arg Ala Gln			
100	105	110	

Cys Ser Gly Leu Leu Tyr Gly Leu Gln Met Ala Arg Gly Gln Ile Leu
 115 120 125
 Ala Gly Leu Ala Arg His Val Leu Val Val Cys Gly Glu Val Leu Ser
 130 135 140
 Lys Arg Met Asp Cys Ser Asp Arg Gly Arg Asn Leu Ser Ile Leu Leu
 145 150 155 160
 Gly Asp Gly Ala Gly Ala Val Val Val Ser Ala Gly Glu Ser Leu Glu
 165 170 175
 Asp Gly Leu Leu Asp Leu Arg Leu Gly Ala Asp Gly Asn Tyr Phe Asp
 180 185 190
 Leu Leu Met Thr Ala Ala Pro Gly Ser Ala Ser Pro Thr Phe Leu Asp
 195 200 205
 Glu Asn Val Leu Arg Glu Gly Gly Glu Phe Leu Met Arg Gly Arg
 210 215 220
 Pro Met Phe Glu His Ala Ser Gln Thr Leu Val Arg Ile Ala Gly Glu
 225 230 235 240
 Met Leu Ala Ala His Glu Leu Thr Leu Asp Asp Ile Asp His Val Ile
 245 250 255
 Cys His Gln Pro Asn Leu Arg Ile Leu Asp Ala Val Gln Glu Gln Leu
 260 265 270
 Gly Ile Pro Gln His Lys Phe Ala Val Thr Val Asp Arg Leu Gly Asn
 275 280 285
 Met Ala Ser Ala Ser Thr Pro Val Thr Leu Ala Met Phe Trp Pro Asp
 290 295 300
 Ile Gln Pro Gly Gln Arg Val Leu Val Leu Thr Tyr Gly Ser Gly Ala
 305 310 315 320
 Thr Trp Gly Ala Ala Leu Tyr Arg Lys Pro Glu Glu Val Asn Arg Pro
 325 330 335
 Cys

<210> 12
 <211> 301
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 12
 Met Leu Arg Leu Ser Ala Pro Gly Gln Leu Asp Asp Asp Leu Cys Leu
 1 5 10 15
 Leu Gly Asp Val Gln Val Pro Val Phe Leu Leu Arg Leu Gly Glu Ala
 20 25 30
 Ser Trp Ala Leu Val Glu Gly Gly Ile Ser Arg Asp Ala Glu Leu Val
 35 40 45
 Trp Ala Asp Leu Cys Arg Trp Val Ala Asp Pro Ser Gln Val His Tyr
 50 55 60
 Trp Leu Ile Thr His Lys His Tyr Asp His Cys Gly Leu Leu Pro Tyr
 65 70 75 80
 Leu Cys Pro Arg Leu Pro Asn Val Gln Val Leu Ala Ser Glu Arg Thr
 85 90 95
 Cys Gln Ala Trp Lys Ser Glu Ser Ala Val Arg Val Val Glu Arg Leu
 100 105 110
 Asn Arg Gln Leu Leu Arg Ala Glu Gln Arg Leu Pro Glu Ala Cys Ala
 115 120 125
 Trp Asp Ala Leu Pro Val Arg Ala Val Ala Asp Gly Glu Trp Leu Glu
 130 135 140
 Leu Gly Pro Arg His Arg Leu Gln Val Ile Glu Ala His Gly His Ser

145	150	155	160												
Asp	Asp	His	Val	Val	Phe	Tyr	Asp	Val	Arg	Arg	Arg	Arg	Leu	Phe	Cys
165			170											175	
Gly	Asp	Ala	Leu	Gly	Glu	Phe	Asp	Glu	Ala	Glu	Gly	Val	Trp	Arg	Pro
180				185									190		
Leu	Val	Phe	Asp	Asp	Met	Glu	Ala	Tyr	Leu	Glu	Ser	Leu	Glu	Arg	Leu
195					200							205			
Gln	Arg	Leu	Pro	Thr	Leu	Leu	Gln	Leu	Ile	Pro	Gly	His	Gly	Gly	Leu
210					215					220					
Leu	Arg	Gly	Arg	Leu	Ala	Ala	Asp	Gly	Ala	Glu	Ser	Ala	Tyr	Thr	Glu
225					230					235			240		
Cys	Leu	Arg	Leu	Cys	Arg	Arg	Leu	Leu	Trp	Arg	Gln	Ser	Met	Gly	Glu
245					250					255					
Ser	Leu	Asp	Glu	Leu	Ser	Glu	Glu	Leu	His	Arg	Ala	Trp	Gly	Gly	Gln
260					265					270					
Ser	Val	Asp	Phe	Leu	Pro	Gly	Glu	Leu	His	Leu	Gly	Ser	Met	Arg	Arg
275					280					285					
Met	Leu	Glu	Ile	Leu	Ser	Arg	Gln	Ala	Leu	Pro	Leu	Asp			
290					295					300					

<210> 13
 <211> 382
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 13															
Met	Thr	Val	Leu	Ile	Gln	Gly	Ala	Gly	Ile	Ala	Gly	Leu	Ala	Leu	Ala
1				5					10					15	
Arg	Glu	Phe	Thr	Lys	Ala	Gly	Ile	Asp	Trp	Leu	Leu	Val	Glu	Arg	Ala
				20					25					30	
Ser	Glu	Ile	Arg	Pro	Ile	Gly	Thr	Gly	Ile	Thr	Leu	Ala	Ser	Asn	Ala
				35					40					45	
Leu	Thr	Ala	Leu	Ser	Ser	Thr	Leu	Asp	Leu	Asp	Arg	Leu	Phe	Arg	Arg
				50					55					60	
Gly	Met	Pro	Leu	Ala	Gly	Ile	Asn	Val	Tyr	Ala	His	Asp	Gly	Ser	Met
				65					70					75	80
Leu	Met	Ser	Met	Pro	Ser	Ser	Leu	Gly	Gly	Asn	Ser	Arg	Gly	Gly	Leu
					85					90					95
Ala	Leu	Gln	Arg	His	Glu	Leu	His	Ala	Ala	Leu	Glu	Gly	Leu	Asp	
					100					105					110
Glu	Ser	Arg	Ile	Arg	Val	Gly	Val	Ser	Ile	Val	Gln	Ile	Leu	Asp	Gly
				115					120					125	
Leu	Asp	His	Glu	Arg	Val	Thr	Leu	Ser	Asp	Gly	Thr	Val	His	Asp	Cys
				130					135					140	
Ser	Leu	Val	Val	Gly	Ala	Asp	Gly	Ile	Arg	Ser	Ser	Val	Arg	Arg	Tyr
				145					150					155	160
Val	Trp	Pro	Glu	Ala	Thr	Leu	Arg	His	Ser	Gly	Glu	Thr	Cys	Trp	Arg
					165					170					175
Leu	Val	Val	Pro	His	Arg	Leu	Glu	Asp	Ala	Glu	Leu	Ala	Gly	Glu	Val
					180					185					190
Trp	Gly	His	Gly	Lys	Arg	Leu	Gly	Phe	Ile	Gln	Ile	Ser	Pro	Arg	Glu
				195					200					205	
Met	Tyr	Val	Tyr	Ala	Thr	Leu	Lys	Val	Arg	Arg	Glu	Glu	Pro	Glu	Asp
				210					215					220	
Glu	Glu	Gly	Phe	Val	Thr	Pro	Gln	Arg	Leu	Ala	Ala	His	Tyr	Ala	Asp
				225					230					235	
															240

Phe Asp Gly Ile Gly Ala Ser Ile Ala Arg Leu Ile Pro Ser Ala Thr
 245 250 255
 Thr Leu Val His Asn Asp Leu Glu Glu Leu Ala Gly Ala Ser Trp Cys
 260 265 270
 Arg Gly Arg Val Val Leu Ile Gly Asp Ala Ala His Ala Met Thr Pro
 275 280 285
 Asn Leu Gly Gln Gly Ala Ala Met Ala Leu Glu Asp Ala Phe Leu Leu
 290 295 300
 Ala Arg Leu Trp Cys Leu Ala Pro Arg Ala Glu Thr Leu Ile Leu Phe
 305 310 315 320
 Gln Gln Gln Arg Glu Ala Arg Ile Glu Phe Ile Arg Lys Gln Ser Trp
 325 330 335
 Ile Val Gly Arg Leu Gly Gln Trp Glu Ser Pro Trp Ser Val Trp Leu
 340 345 350
 Arg Asn Thr Leu Val Arg Leu Val Pro Asn Ala Ser Arg Arg Arg Leu
 355 360 365
 His Gln Arg Leu Phe Thr Gly Val Gly Glu Met Ala Ala Gln
 370 375 380

<210> 14
 <211> 398
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 14
 Met Thr Asp Asn His Ile Asp Val Leu Ile Asn Gly Cys Gly Ile Gly
 1 5 10 15
 Gly Ala Met Leu Ala Tyr Leu Leu Gly Arg Gln Gly His Arg Val Val
 20 25 30
 Val Val Glu Gln Ala Arg Arg Glu Arg Ala Ile Asn Gly Ala Asp Leu
 35 40 45
 Leu Lys Pro Ala Gly Ile Arg Val Val Glu Ala Ala Gly Leu Leu Ala
 50 55 60
 Glu Val Thr Arg Arg Gly Gly Arg Val Arg His Glu Leu Glu Val Tyr
 65 70 75 80
 His Asp Gly Glu Leu Leu Arg Tyr Phe Asn Tyr Ser Ser Val Asp Ala
 85 90 95
 Arg Gly Tyr Phe Ile Leu Met Pro Cys Glu Ser Leu Arg Arg Leu Val
 100 105 110
 Leu Glu Lys Ile Asp Gly Glu Ala Thr Val Glu Met Leu Phe Glu Thr
 115 120 125
 Arg Ile Glu Ala Val Gln Arg Asp Glu Arg His Ala Ile Asp Gln Val
 130 135 140
 Arg Leu Asn Asp Gly Arg Val Leu Arg Pro Arg Val Val Val Gly Ala
 145 150 155 160
 Asp Gly Ile Ala Ser Tyr Val Arg Arg Leu Leu Asp Ile Asp Val
 165 170 175
 Glu Arg Arg Pro Tyr Pro Ser Pro Met Leu Val Gly Thr Phe Ala Leu
 180 185 190
 Ala Pro Cys Val Ala Glu Arg Asn Arg Leu Tyr Val Asp Ser Gln Gly
 195 200 205
 Gly Leu Ala Tyr Phe Tyr Pro Ile Gly Phe Asp Arg Ala Arg Leu Val
 210 215 220
 Val Ser Phe Pro Arg Glu Glu Ala Arg Glu Leu Met Ala Asp Thr Arg
 225 230 235 240
 Gly Glu Ser Leu Arg Arg Leu Gln Arg Phe Val Gly Asp Glu Ser

245	250	255
Ala Glu Ala Ile Ala Ala Val Thr Gly Thr Ser Arg Phe Lys Gly Ile		
260	265	270
Pro Ile Gly Tyr Leu Asn Leu Asp Arg Tyr Trp Ala Asp Asn Val Ala		
275	280	285
Met Leu Gly Asp Ala Ile His Asn Val His Pro Ile Thr Gly Gln Gly		
290	295	300
Met Asn Leu Ala Ile Glu Asp Ala Ser Ala Leu Ala Asp Ala Leu Asp		
305	310	315
Leu Ala Leu Arg Asp Ala Cys Ala Leu Glu Asp Ala Leu Ala Gly Tyr		
325	330	335
Gln Ala Glu Arg Phe Pro Val Asn Gln Ala Ile Val Ser Tyr Gly His		
340	345	350
Ala Leu Ala Thr Ser Leu Glu Asp Arg Gln Arg Phe Ala Gly Val Phe		
355	360	365
Asp Thr Ala Leu Gln Gly Ser Ser Arg Thr Pro Glu Ala Leu Gly Gly		
370	375	380
Glu Arg Ser Tyr Gln Pro Val Arg Ser Pro Ala Pro Leu Gly		
385	390	395

<210> 15
 <211> 560
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 15
 gtaggtgtcc tcttcggcag gctcgccag tgtactacgc aatgggattt caacaggaa 60
 gcctgcaaat ggcaggcgag gcggggcgga ggcgtatcg cccgatggat ggcgcctgc 120
 ttccaggcat gccgtcgccc ccttggagcc caggccgagc gcctcgaact gtgagattt 180
 ggaggcgatt tgccgagcaa agtgggttgc cattgttttgc ccatctcatg gttcggacg 240
 aggccctcgag caagggttgc aacggttttt gtctggccaa tgggctcttgc cgtaaaaagg 300
 ctggccgcct tcttgcttgg ttggcggttgc cggatcccgc gcagcccggtt ggtgtgcca 360
 aatttctcgc ggtttggatc ggcggatttgc cgcggcccta cgaagcccggtt gtttcttc 420
 cccgaaactt ttctcggttgc actccgaata tcgcgttgc cccagcgccg ctatccc 480
 gttcctgaca aagcaagcgc tctggctcag gtatctccttgc atccggatgc atatcgctga 540
 agagggaaacg ttctgtcatg 560

<210> 16
 <211> 999
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 16
 atgcctattc ataacctgaa tcacgtgaac atgttctcc aggtcatcgc ctccggttcg 60
 atttcctccg ctgcgcggat cctgcgcgaag tcgcacaccc cggtcagctc ggcgtcagc 120
 aacctggaaa tcgacctgtg cgtggagctg gtccgtcgaa acggctacaa ggtcaaccc 180
 accgagcagg cgcttcgcct gatcccttac atgcgcagcc tgctgaacta ccagcagctg 240
 atccggcaca tcgccttcaa tctcaacaag ggtccgcgcata atctccgggt gctgctggac 300
 accgcctatcc cgccgtcggtt ctgcgatacg gtgaggcagcg tactgctcga cgattcaac 360
 atggtcagcc tgatacgcac ctcgcggcc gatagcctgg cgacgatcaa gcagacaac 420
 gcgaaaatcg atatcgccat caccatcgac gaggaactga agatctcccg cttcaaccag 480
 tgcgtgtcg gctacaccaa ggcgttcgtc gtcgcccattc cgcagcaccg gttgtgcaat 540
 gcctccctgc acagcatcgc gagcctggcc aattaccggc agatcagcct cggcagccgc 600
 tccgggcagc attcgaacct gtcggcccg gtcagcgaca aggtgcttt cgtggaaaac 660
 ttgcacgaca tgctgcgtct ggtggaaagcc ggcgtcggat ggggcattcgc gccgcattat 720
 ttctcgagg aacgcctcgcc caacgggttcc ctggcagtcc tcagcgaact ctacgaaccg 780

ggcggcatcg acaccaaggt gtattgctac tacaacaccg cgctggaatc cgagcgcagc 840
ttcctgcgct ttctcgaaag cgcgcgcag cgcctgcgcg aactcggccg ccagcgttc 900
gacgatgcgc cggcctggca accgagcatc gtcgaaacgg cgacgcgcg ctcaggccg 960
aaggcgctcg cgtaccgcca gcgcgcgc 999
ccagagtag

<210> 17
<211> 332
<212> PRT
<213> Pseudomonas aeruginosa

<400> 17
Met Pro Ile His Asn Leu Asn His Val Asn Met Phe Leu Gln Val Ile
1 5 10 15
Ala Ser Gly Ser Ile Ser Ser Ala Ala Arg Ile Leu Arg Lys Ser His
20 25 30
Thr Ala Val Ser Ser Ala Val Ser Asn Leu Glu Ile Asp Leu Cys Val
35 40 45
Glu Leu Val Arg Arg Asp Gly Tyr Lys Val Glu Pro Thr Glu Gln Ala
50 55 60
Leu Arg Leu Ile Pro Tyr Met Arg Ser Leu Leu Asn Tyr Gln Gln Leu
65 70 75 80
Ile Gly Asp Ile Ala Phe Asn Leu Asn Lys Gly Pro Arg Asn Leu Arg
85 90 95
Val Leu Leu Asp Thr Ala Ile Pro Pro Ser Phe Cys Asp Thr Val Ser
100 105 110
Ser Val Leu Leu Asp Asp Phe Asn Met Val Ser Leu Ile Arg Thr Ser
115 120 125
Pro Ala Asp Ser Leu Ala Thr Ile Lys Gln Asp Asn Ala Glu Ile Asp
130 135 140
Ile Ala Ile Thr Ile Asp Glu Glu Leu Lys Ile Ser Arg Phe Asn Gln
145 150 155 160
Cys Val Leu Gly Tyr Thr Lys Ala Phe Val Val Ala His Pro Gln His
165 170 175
Pro Leu Cys Asn Ala Ser Leu His Ser Ile Ala Ser Leu Ala Asn Tyr
180 185 190
Arg Gln Ile Ser Leu Gly Ser Arg Ser Gly Gln His Ser Asn Leu Leu
195 200 205
Arg Pro Val Ser Asp Lys Val Leu Phe Val Glu Asn Phe Asp Asp Met
210 215 220
Leu Arg Leu Val Glu Ala Gly Val Gly Trp Gly Ile Ala Pro His Tyr
225 230 235 240
Phe Val Glu Glu Arg Leu Arg Asn Gly Thr Leu Ala Val Leu Ser Glu
245 250 255
Leu Tyr Glu Pro Gly Gly Ile Asp Thr Lys Val Tyr Cys Tyr Tyr Asn
260 265 270
Thr Ala Leu Glu Ser Glu Arg Ser Phe Leu Arg Phe Leu Glu Ser Ala
275 280 285
Arg Gln Arg Leu Arg Glu Leu Gly Arg Gln Arg Phe Asp Asp Ala Pro
290 295 300
Ala Trp Gln Pro Ser Ile Val Glu Thr Ala Gln Arg Arg Ser Gly Pro
305 310 315 320
Lys Ala Leu Ala Tyr Arg Gln Arg Ala Ala Pro Glu
325 330